

THE MARYLAND STATE HORTICULTURAL DEPARTMENT

Maryland Agricultural College, College Park, Md.

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Special Circular on the Destructive Green Pea Louse

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During the past three weeks we have issued three circulars (No. 7; May 12; No. 11, May 15; and No. 13, May 21) on the destructive green pea louse. We have now completed another week's observations, and to meet the demand for the latest observations and developments we print the present circular.



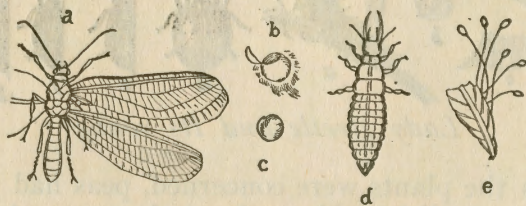
Lady Beetle and Its young.

So far as the plants were concerned, peas had very favorable weather conditions throughout the state the past ten days. Stimulated by the copious rains of the 18th and 19th and cool nights they developed very rapidly. On the other hand, however, the louse has kept pace with these conditions and has developed with equal rapidity and has perceptibly weakened the plants and cut short the prospect so promising the early part of the week.

Syrphus flies have been actively at work depositing eggs in the colonies of lice. Their young have devoured myriads of them; but the invasion of lice from clover has been far more numerous than those devoured. This accounts for the rapid increase of lice in peas, therefore during the past week.

In most parts of the State crimson clover has been cut or plowed down; but where it is standing it is full of lice. Red clover is green and vigorous in most fields and continues to be a veritable breeding bed for the lice.

Peas in all parts of the state have an increased number of lice upon them. Where the brush and cultivator and brush and tin pan methods are being used, the peas are holding their own and will make a fairly good crop. Some fields have already been abandoned, especially where nothing has been done to check and control this pest, and where the peas are in drills or broad cast. On Saturday last we continued our inspection in Frederick county, where we were accompanied by Messrs Goode Bros. of the Louis McMurray Packing Co. and Messrs Ross and Staley of the Monocacy Valley Canning Co. In this section practically all the peas are in drills, thus precluding any possible method of combating the pests. Most of the very early peas will be ready for the canner Saturday June 2nd; but the crop will be cut short fully one-third to one-half. The late peas have little or no chance of reaching maturity, and from present conditions in all parts of the State, late peas in drills will be almost a total failure. Late peas in rows can be mostly saved, if the brush, cultivator and pan are used persistently.



Lace-wing Fly and Its Young.

We have again found the louse disease, *Empusa Aphidis* in both clover and peas. Lady beetles and their young and the lace winged fly are actively at work devouring their quota of lice. The farmer must bestir himself to keep apace with the times and destroy his share of these life suckers.

We cannot expect any practical benefit from the air exhaust or sucker machine constructed by the Chisholm-Scott Co., of Baltimore mentioned last week. This machine has been given a practical test by the designers in the extensive fields of F. P. Roe and Brother at Greensboro, Md. While

correct in principal, it is of no practical use on a large scale in the field. It may be developed later. The same firm are now at work upon the mechanical side of a brushing machine which can be drawn by a horse; and we fully expect the perfection of some practical device along this line very soon by this enterprising firm,



The Soldier Beetle.



The Syrphus Fly.

We have practically exhausted every resource in our efforts to find some vulnerable spot in the life history of this "iron-clad" pest; but we have not succeeded thus far. We have had the pest under daily observation one year last Thursday (May 24).

Our surest means of help is along the mechanical lines, and, possibly, the further study of crop rotation may give us a clue to the problem.

On the whole, the condition for a large crop of peas in this State is everything but encouraging. That the pea louse is not easily conquered is now admitted, even by Mr. R. P. Scott himself. In a recent circular he says:—"We regret to have to confess that we have been 'licked clean out of our boots' so far in our efforts to exterminate the pea louse".

We can not admit that we are defeated in this warfare; but one thing is sure, we must change our system of planting peas, and not plant in drills or broad cast, but in rows about thirty inches apart and very early; lessening our acreage of late peas as much as possible. Fully three-fifths of the crop in this state will come from the very early plantings

All the insects shown are destroyers of the Green Pea Louse.

